March 1962 Natural History

Reviews

Two views of our land

By JACK MCCORMICK

THE CONTINENT WE LIVE ON, by Ivan T. Sanderson. *Random House, $20.00; 300 pp., illus.* OUR NATIONAL PARK POLICY, by John Ise. *The Johns Hopkins Press, $10.00; 701 pp.*

DURING THE PAST TWO DECADES, the phrases "population explosion" and "urban sprawl" have evolved from catchwords into accurate names for the results of human fertility, extended life expectancy, and the greater demand for individual living space. Simultaneously, there has developed an increasing number of proponents for the preservation of wilderness and natural areas, and for the enjoyment of open spaces in all types of parks, and other tracts kept free of houses, shopping centers, factories, and similar developments. Each day, however, such areas become scarcer and more expensive to acquire.

Coupled with this increased interest in the conservation of open space and natural areas is a growing desire for knowledge about the location, the natural features, and the biota of such areas. Two recent books portray America's natural features from different viewpoints and through different mediums.

John Ise, Professor Emeritus at the University of Kansas, makes a realistic and somewhat pessimistic analysis of the establishment, evolution, and future of our greatest system of preserved natural areas—our national parks—in a scholarly, well-documented book. This is an absorbing account both of the discovery and of the natural features of our various national parks and memorials, and of the struggles to acquire and maintain them.

In striking contrast to Dr. Ise's superb but unadorned text is the beautifully illustrated volume entitled *The Continent We Live On.* As an example of excellence in landscape and wildlife photography, combined with fine printing and craftsmanship, this volume is unsurpassed. Regrettably, the book is badly marred by its accompanying text —the work of Ivan T. Sanderson, who is rapidly rising to the office of high priest of nature fakers. His occasionally lucid but generally mediocre text is a case study in faulty interpretation, undocumented claims, fictitious awe, and totally unnatural history.

There is such a contrast in quality between word and illustration that it is difficult to think of the volume as "Ivan Sanderson's book." It is easier to believe that Random House has a conscientious picture editor who spent considerable time locating and assembling some of the most outstanding landscape photographs available. To that anonymous individual much of the credit should be given for the value of this book.

Generally, a reviewer welcomes the opportunity to compare the ideas of two authors who are dealing with similar material. He can air their differences of opinion, and point pleasurably to concepts about which they agree with one another—or with the reviewer. In the case of these two books, however, such a comparison would be a travesty. *The Continent We Live On,* therefore, will be sampled only briefly, so that some of the stimulating concepts in *Our National Park Policy* can be examined at length.

ONE surprising aspect to be noted regarding the approximately 235 fine photographs (of which 109 are in color) is that only three have any discernable trace of man or his artifacts. All the others are unmarred by houses, power lines, vapor trails, highways, or charming models in bright clothing. Only a few of the photographs are obviously posed or make use of dead, propped-up specimens or museum displays. (One example of the last—a picture of a jack rabbit—was taken in The American Museum of Natural History, but it is not properly captioned or credited.) As a result, the bulk of the pictures form a beautiful portfolio of America's natural landscape which may justify purchase of the book.

Even Mr. Sanderson's introductory remarks, however, indicate his lack of familiarity with his chosen subject. He makes the baseless claim that "not half a dozen states . . . have so much as a vegetation map of their territory. . . ." To the reviewer, who presently is wilting beneath the burden of cataloguing more than a thousand published vegetation maps of various parts of North America, this statement is ludicrous. Although they vary in quality, scale, and concept, such maps are available for every state and every portion of North America.

The legion of erroneous statements in the text permits mention of only a few examples. The author states, early in the work, that a body would weigh about 11 per cent more at the North Pole than at the Equator, owing to the difference in centrifugal force produced by the earth's rotation. Actually, the increase in weight would be less than 0.4 per cent. Again, he observes that an iceberg melts more rapidly *below* the water surface than above, and therefore rises higher in the water as it melts. Anyone with an elementary familiarity with Archimedes' law would know this to be the reverse of what occurs. Actually, an iceberg rises in the water because its exposed surface melts or abates more rapidly than its submerged sections. As weight is removed from above, the pressure of the water forces the ice upward until only enough is beneath the water to displace a volume of water with a weight equal to that of the entire ice mass.

But there is more. Steam, it is said is the gaseous phase of water, whereas it actually is a suspension of liquid droplets.The Laurentian Shield, the major geologic feature of central and eastern Canada, is termed a "horst," although a horst, by definition, is a vertically elevated fault block. The Yukon's St. Elias Range is modestly said to have a peak elevation of more than 18.000 feet; actually, its highest peak—Mt. Logan —reaches a proud 19,850 feet. Glacier Bay is referred to as a National Park of 230.000 acres, while in reality it is a National Monument of nearly 2.300.000 acres. The tallest redwood is said to have stood 340 feet in height, but the tallest known redwood—the Founder's Tree—was 364 feet when last measured, and is still growing.

Let us also select at random a few examples of Mr. Sanderson's unnatural history. We learn at the master's knee that the major glacial periods were *not* times when ice moved over the land, but when, instead, "the land must have moved in and out under the polar ice. . . ." Another bit of lore, designed to awe the unwary reader, relates that desert plants "have developed" spines for the "purpose" of discharging surplus static electricity, thus becoming—according to the author—lightning rods in reverse. This explains the "strange crackling sounds" and the mysterious lights that people with Mr. Sanderson's imagination seem prone to encounter in the desert.

The usual errors in popularized nature accounts written by ill-informed or careless authors also occur. Plants *breathe* through pores located on the underside of the leaves. Cacti are the dominant plants of the desert and, if removed, would leave a barren or "sterile" void.

An ecologist, DR. MCCORMICK is with both the Botany and Polar Research Departments at Ohio State University.

The reader should also be cautious of Mr. Sanderson's glossary. Among other errors, a saprophyte is there defined as "A plant that grows upon but is not parasitic on another plant."

In addition to its mistakes, much of the text of *The Continent We Live On* is inappropriate. Although the book is supposedly designed as a description of the natural landscapes of North America, a goodly portion of the text and many of the illustrations are devoted entirely to the mammals of North America. However, it must be conceded that Mr. Sanderson is more accustomed to discussing mammals than geologic processes, landscapes, and vegetation patterns. It is at least a relief to find that the strange, humanoid creatures which, according to Mr. Sanderson's previous writings, are roaming undiscovered through our western wildernesses, find no mention here.